

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of claims in the application.

1. (Original): An austenitic stainless steel having high stress corrosion crack resistance, characterized by containing, in percent by weight,

0.030% or less C,

0.1% or less Si,

2.0% or less Mn,

0.03% or less P,

0.002% or less S,

11 to 26% Ni,

17 to 30% Cr,

3% or less Mo, and

0.01% or less N,

the balance substantially being Fe and unavoidable impurities.

2. (Original): An austenitic stainless steel having high stress corrosion crack resistance, characterized by containing, in percent by weight,

0.030% or less C,

0.1% or less Si,

2.0% or less Mn,

0.03% or less P,

0.002% or less S,

11 to 26% Ni,

17 to 30% Cr,

3% or less Mo,

0.01% or less N,

0.001% or less Ca,

0.001% or less Mg, and
0.004% or less O,
the balance substantially being Fe and unavoidable impurities.

3. (Original): An austenitic stainless steel having high stress corrosion crack resistance, characterized by containing, in percent by weight,

0.030% or less C,

0.1% or less Si,

2.0% or less Mn,

0.03% or less P,

0.002% or less S,

11 to 26% Ni,

17 to 30% Cr,

3% or less Mo,

0.01% or less N,

0.001% or less Ca,

0.001% or less Mg,

0.004% or less O, and

0.01% or less of any one of Zr, B and Hf,

the balance substantially being Fe and unavoidable impurities.

4. (Original): The austenitic stainless steel having high stress corrosion crack resistance according to any one of claims 1 to 3, characterized in that

(Cr equivalent) – (Ni equivalent) is in the range of –5% to +7%.

5. (Currently amended): The austenitic stainless steel having high stress corrosion crack resistance according to any one of claims 1 to ~~[[4]]~~ 3, characterized in that

Cr equivalent / Ni equivalent is 0.7 to 1.4.

6. (Currently amended): The austenitic stainless steel having high stress corrosion crack resistance according to any one of claims 1 to ~~[[5]]~~ 3, characterized in that stacking fault energy (SFE) calculated by the following equation (1):

$$\text{SFE}(\text{mJ/m}^2) = 25.7 + 6.2 \times \text{Ni} + 410 \times \text{C} - 0.9 \times \text{Cr} - 77 \times \text{N} - 13 \times \text{Si} - 1.2 \times \text{Mn}$$

... (1)

is 100 (mJ/m²) or higher.

7. (Currently amended): A manufacturing method for a stainless steel, characterized in that a billet consisting of the austenitic stainless steel according to any one of claims 1 to ~~[[6]]~~ 3 is subjected to solution heat treatment at a temperature of 1000 to 1150°C.

8. (Currently amended): A manufacturing method for a stainless steel, characterized in that a billet consisting of the austenitic stainless steel according to any one of claims 1 to ~~[[6]]~~ 3 is subjected to solution heat treatment at a temperature of 1000 to 1150°C, thereafter being subjected to cold working of 10 to 30%, and is then subjected to intergranular carbide precipitation treatment at a temperature of 600 to 800°C for 1 to 50 hours.

9. (Currently amended): A structure in a nuclear reactor, characterized by being formed of the austenitic stainless steel according to any one of claims 1 to ~~[[6]]~~ 3.

10. (Currently amended): A pipe for a nuclear reactor, characterized by being formed of the austenitic stainless steel according to any one of claims 1 to ~~[[6]]~~ 3.

11. (Currently amended): A structure in a nuclear reactor, characterized by being formed of the stainless steel obtained by the manufacturing method according to claim 7 ~~[[or 8]]~~.

12. (Currently amended): A pipe for a nuclear reactor, characterized by being formed of the stainless steel obtained by the manufacturing method according to claim 7 ~~[[or 8]]~~.

13. (New): A structure in a nuclear reactor, characterized by being formed of the stainless steel obtained by the manufacturing method according to claim 8.

14. (New): A pipe for a nuclear reactor, characterized by being formed of the stainless steel obtained by the manufacturing method according to claim 8.